
NOTE ON A REMARKABLE HOUSE EPIDEMIC OF
TYPHOID FEVER.

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HOUSE epidemics of typhoid fever, to the extent and severity of the one here noted, are very rare.

November 26, 1892, I went near Darlington, above Havre de Grace, Md., to see a case in connection with which Dr. Sappington gave me the following remarkable history of a house epidemic of typhoid fever:

CASE I.—Wm. B., aged 37, had been ill early in August, at Ocean City, with what was supposed to be malaria. He returned to his home in Baltimore August 8, and on the 13th came here to his mother's home, and was ill for six weeks with diarrhea and delirium; and had, according to the doctor, a well-marked attack of typhoid fever. There had been no previous illness during the summer in the house, and it is perfectly clear that this, the first case, was imported.

CASE II.—His wife, A. B., aged 34, was taken ill about the 29th of September with typhoid fever; well-marked case; fever 101° to 104° . At the end of four weeks she was better. She was moved, had hemorrhages, and again was ill six weeks, but ultimately recovered.

CASE III.—His sister, M. B., aged 28, was taken ill about the 29th of September, had a very bad attack, and gradually recovered.

CASE IV.—J. B., a sister, aged 21, was also taken ill about the third week in September, had fever, not very bad at first, and subsequently had severe hemorrhages, and died October 12.

CASE V.—John B., aged 3, son of Wm. B. (Case I), came with his

mother from Baltimore, and was taken ill about the third week in September. He had a mild attack, with fever, abdominal symptoms, and well-marked rose spots.

CASE VI.—John B., aged 35; fever began toward the end of September. He had headaches, diarrhea, and a tolerably sharp attack. Convalescence began about October 17th; the temperature remained about normal until October 24th, then he had a definite relapse, with fever ranging to 104° and 105° . From November 8th until the 14th there was a period of apyrexia, and then the temperature rose again, and I saw him on the 26th in what appears to be a second relapse. The temperature has been up to 103° and 104° , and on several occasions 105° . On the 25th, for instance, temperature range was between 101° and 105° . He has been delirious, and has had several chills; great pain in his legs, and very great tenderness of feet, especially on the soles.

This case was away from the house at Annapolis a short time, and was the last to take the fever.

CASE VII.—Nurse T., taken ill on the 17th of October, and was removed to the Homeopathic Hospital in Baltimore, where she had a well-characterized attack of typhoid fever, of which she died. She had been in the house forty-two days.

CASE VIII.—Colored nurse of child; was taken ill about the 10th of October, went to Baltimore, and had a definite attack of typhoid fever and died. She had been in the house twenty-six days.

CASE IX.—Miss G., nurse, had been in the house forty-two days, and was taken to Philadelphia, ill with typhoid fever, and died in the third week of the attack.

CASE X.—B. B., a sister, had also, according to the doctor's description, typhoid fever, but she kept about the house, and would not go to bed for any length of time.

During the months of August, September, October and November there were ten cases and four deaths.

The house, a comfortable, old-fashioned, square stone building, is situated on a ridge in the beautiful rolling district of Hartford County, only a few miles from the Susquehanna River. In front of the house the ground slopes rapidly toward the roadway, which runs along a narrow valley. At the back of the house the land slopes more gradually. At a distance of about seventy-eight yards in front and to the left of the stone house, and about two-thirds of the way down the hill, is a comfortable frame house, occupied by the tenant, with a family of nine, of ages from 14 to 85. About seventy yards further down the valley, close to the roadway, is a spring of clear water, close to which is erected the "spring house" for dairy purposes.

Opening from the kitchen of Mr. B's house, which is a T-shaped extension, there is a covered stoop or porch, beneath the floor of which is a cistern, square, with a depth of nine feet, width of ten feet, the bottom of which is ten feet below the surface of the soil. It is cemented, and was last cleaned about May, 1892. This cistern collects the water from the roof, and at one time also received water from the spring, which was pumped up by a ram. This was abandoned years ago.

Immediately behind the kitchen, at a distance of about twenty feet, is a wood-shed, and a privy, which is situated on the slope of ground behind the house. The bottom of the privy is on the level of the ground. The difference in level between the bottom of the cistern and the top of the privy is, Mr. B. thinks, about ten feet. This practically is the situation of the surroundings. The house itself inside is comfortable; the rooms are large and convenient. There is nothing whatever in their arrangement to call for special comment.

Dr. Sappington writes that "the household consisted of another brother, who did not go into the sick rooms, but ate the food and drank the water, as did also a colored boy aged 15, also the mother (Mrs. B.), also Dr. Sappington drank freely of the spring water, and often had his dinner at the house. A cook could be kept only a short time after the third week, and many things were supplied by their friends."

The source of infection in this epidemic is very difficult to trace. One thing only is certain, namely, that the spring water was not at fault, since living close by and using the water freely was the family of the tenant, every member of which escaped. Two alternatives remain, either the food supplies or the kitchen utensils were in some way infected from the first case, which seems to be by far the most likely view, or the disease was propagated by direct contagion, a view which Dr. Sappington holds very firmly, but which, though not impossible, does not seem to be very likely when one considers the extreme rarity of direct infection in this disease.

Though the surface slope is from the cistern, yet it is quite possible that it may have been contaminated, and if the water was used for washing the kitchen utensils (upon which point it is impossible to get positive information), this would be the most likely source of infection.